



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/714,030	11/15/2000	Richard Davidsen	ATL 244	5221

28159 7590 08/27/2002

ATL ULTRASOUND
P.O. BOX 3003
22100 BOTHELL EVERETT HIGHWAY
BOTHELL, WA 98041-3003

EXAMINER

MEDLEY, PETER M

ART UNIT	PAPER NUMBER
----------	--------------

2834

DATE MAILED: 08/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/714,030

Applicant(s)

DAVIDSEN, RICHARD *me*

Examiner

Peter M Medley

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 January 1932.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28-32 is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11 and 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawabe et al.

With respect to claims 1-4, 9-11, and 28-32, the reference discloses an ultrasonic transducer in **figs. 3(a) and 3(e)** comprising transducers **1** and a backing block assembly comprising flex circuits **6** and an acoustic backing material of predetermined thickness and acoustic scatters (last paragraph of column 7).

With respect to claims 5-7, 13-15, the reference discloses that the flex circuits **6** have traces **33**, are conductively plated **34**, and extend beyond the plated in **fig. 3(e)**.

With respect to claims 8 and 16, the reference discloses epoxy in the last paragraph of column 7.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawabe et al in view of Greenstein (5,329,498).

The reference discloses an ultrasonic transducer in **figs. 3(a) and 3(e)** comprising transducers **1** and a backing block assembly comprising flex circuits **6** and an acoustic backing material of predetermined thickness and acoustic scatters (last paragraph of column 7).

The reference does not disclose plates of different sizes.

Greenstein discloses a laminated structure for electrical and mechanical connection for the purpose of attenuating rearwardly directed wave energy. It would have been obvious to one of ordinary skill in the art to modify Kawabe et al to have plates of different directions for the purpose of attenuating rearwardly directed wave energy.

Claims 17-21 and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawabe et al.

With respect to claims 17, 18, 20, and 24-27, the reference discloses an ultrasonic transducer in **figs. 3(a) and 3(e)** comprising transducers **1** and a backing block assembly comprising flex circuits **6** and an acoustic backing material of predetermined thickness and acoustic scatters (last paragraph of column 7).

The reference does not disclose separate plates and adhesive.

The courts have ruled that separating one element into two elements is an obvious modification. *In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961) (The claimed structure, a lipstick holder with a removable cap, was fully met by

Art Unit: 2834

the prior art except that in the prior art the cap is "press fitted" and therefore not manually removable. The court held that "if it were considered desirable for any reason to obtain access to the end of [the prior art's] holder to which the cap is applied, it would be obvious to make the cap removable for that purpose."). It would have been obvious to one of ordinary skill in the art to modify Kawabe et al by using a pre-formed plate and adhesive for the purpose of reducing drying time of the finished device.

With respect to claims 19, 21, 23, the reference discloses that the flex circuits 6 have traces 33, are conductively plated 34, and extend beyond the plated in fig. 3(e).

Allowable Subject Matter

Claims 28-32 are allowed.

Response to Arguments

Applicant's arguments filed 10 June 2002 have been fully considered but they are not persuasive.

With respect to claim 1, the Applicant argues that the present invention comprises backing plates instead of the blocks found in Kawabe et al. It is the Examiner's position that broadest reasonable definition of plates would include the blocks in Kawabe et al. Furthermore the adhesive is found in the paragraph of column 7.

With respect to claims 9 and 20, the limitations do not preclude the possibility of a printed circuit board. Applicant is reminded that the courts have stated that "even though product-by process claims are limited by and defined by the process, determination of patentability is based on the product itself." *In re Thorpe*, 777 F.2d

695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). It is the Examiner's position the broadest reasonable interpretation of the limitations could include the structure of Kawabe et al.

With respect to claims 12 and 22, the Examiner agrees with the Applicant's characterization of Greenstein, but the courts have found in considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom. *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968). Greenstein teaches that the layers of different lengths allowed the circuitry for the transducer to stay in the "acoustic shadow" which improves the operating characteristics of the device. This improvement is what would modify one of ordinary skill in the art to modify Kawabe et al to have different lengths.

With respect to claim 17, it is the Examiner's position that one of ordinary skill in the art would have understood that the epoxy of Kawabe et al is used as both a casting compound and as a bonding adhesive because it would have been well known that epoxies act as both.

With respect to claim 24, it is the Examiner's position that micromachined is not a structural limitation and is a product-by-process limitations. See *In re Thorpe*. Further, it is the Examiner's position that separating one element into two elements is an obvious modification. *In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961).

The rejection to claims 28-32 has been withdrawn.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

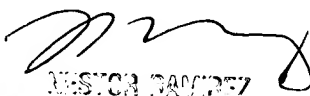
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter M Medley whose telephone number is 703-305-0494. The examiner can normally be reached on Monday-Friday 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3432 for regular communications and 703-305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

PM
August 23, 2002


NESTOR RAMIREZ
SUPERVISOR
TECHNICAL CENTER 2807